V2440

Veramax

High-flow Lockshield Valves

APPLICATION

V2440 Veramax lockshields are used at the supply or return of heat exchangers in hydronic cooling and heating systems requiring high flow rates. They have the following functions:

- Shut-off: by closing the valve the flow through the heat exchanger is shut-off
- Presetting: the flow through the heat exchanger can be throttled to meet system requirements

V2440 Veramax lockshields are suitable for hot water or low pressure steam heating systems and cold water cooling systems.

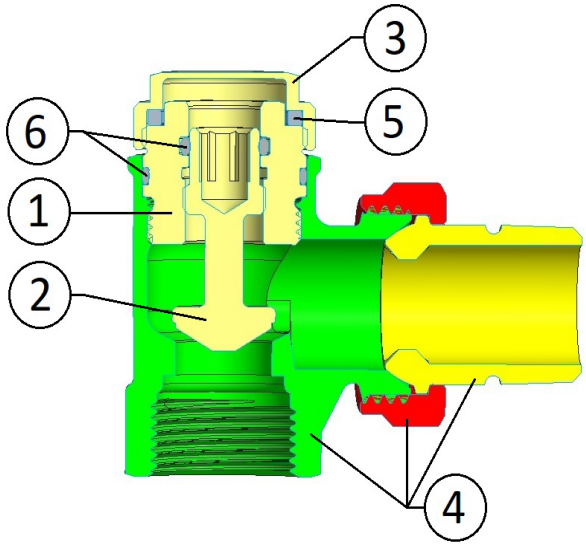
SPECIAL FEATURES

- For heating and cooling systems with high water flow rates
- Presetting and shut-off with one valve
- Optional flow direction. Performance values apply for both directions
- Quiet operation with low-noise design of the regulating plunger
- Standard dimensions DN15 and DN20 per EN215 D-series, plus DN25 straight version
- DN15 and DN20 straight versions with external threads
- Nickel plated valve bodies
- Nickel plated protection cap
- Nominal pressure rating PN16

TECHNICAL DATA

Media	
Medium:	Water or water-glycol mixture, quality to VDI 2035
pH-value:	8 - 9.5
Connections/Sizes	
Radiator connection tailpiece and internal thread:	$^1/_2$" and $^3/_4$" angled; $^1/_2$", $^3/_4$" and 1" straight
Flat sealing and external thread:	G$^3/_4$" and G1"
Operating temperatures	
Max. operating pressure:	130 °C
Min. operating temperature medium:	-10 °C non-freezing
Pressure values	
Max. operating pressure:	PN16, 16 bar (1600 kPa)
Max. differential pressure:	1.0 bar (100 kPa)
Flow capacity	
k_{VS} [m^3/h at 1.0 bar Δp]:	3.4 to 8.2 according to body type

CONSTRUCTION

Overview		Components	Materials
	**1**	Insert cartridge	Brass
	2	Regulation plunger with anti-noise knurling	
	3	Protection cap	
	4	Valve body, tailpiece, nut	
	5	Secondary, fail-safe seal	PTFE
	6	O-rings	EPDM 70

METHOD OF OPERATION

The V2440 Veramax lockshields are valves with presettable kv-value. Using an 8 mm Allen key, the threaded plunger can be rotated by a given number of turns from closed position to the required opening with specific kv-value. Using the same Allen key, the valve can be completely shut-off.

The V2440 Veramax can be installed as the principle throttling valve at large heat exchanges, or at the return of a radiator or other heat exchanger, in order to statically balance the heating or cooling system.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	0 °C
Max. ambient temperature:	50 °C
Max. ambient relative humidity:	75 % *

*non condensing

INSTALLATION GUIDELINES

Setup requirements

- To avoid stone deposit and corrosion the composition of the medium should conform with VDI-Guideline 2035
- All additives and lubricants used for heating medium treatment have to be suitable for EPDM seals to avoid their disintegration. Use of mineral oils should be avoided
- For industrial and long-distance energy systems please refer to applicable codes VdTÜV and 1466/AGFW FW 510
- Heavy polluted existing heating systems must be flushed thoroughly before replacing thermostatic valves
- The heating system must be fully deaerated
- Any complaints or costs resulting from non-compliance with above rules will not be accepted by Reside or its subsidiaries manufacturing the Honeywell Home products

Installation Example

The V2440 Veramax lockshields can be installed at supply or return of heat exchangers, and the medium can flow in either direction.

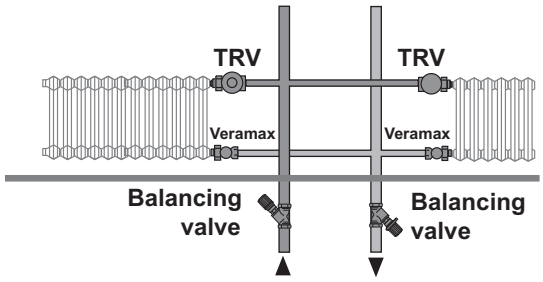


Fig. 1. Installation example heating system

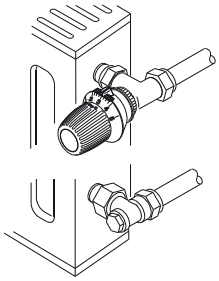


Fig. 2. Installation example radiator

TECHNICAL CHARACTERISTICS

Tab. 1 k_v-values [m^3/h, Δp 1.0 bar] (OS = Order Specification)

OS-No.	Turns of presetting screw from closed position									
	1/4	1/2	1	1 1/2	2	3	4	5	6	7
V2440D0015A	0.1	0.2	0.6	1.0	1.5	2.6	3.5	3.9	N	N
V2449D0015A	0.1	0.2	0.6	1.0	1.5	2.6	3.1	3.4	N	N
V2440E0015A	0.1	0.2	0.6	1.0	1.5	3.5	5.0	6.0	6.9	7.6
V2440D0020A	0.1	0.2	0.6	1.0	1.5	3.5	4.5	N	N	N
V2449D0020A	0.1	0.2	0.6	1.0	1.5	3.5	4.5	N	N	N
V2440E0020A	0.1	0.2	0.6	1.0	1.5	3.5	5.0	6.3	7.4	8.2
V2440D0025A	0.1	0.2	0.6	1.0	1.5	3.5	4.6	5.1	5.6	6.0

Note: N – setting not recommended with the given body type

DIMENSIONS AND ORDERING INFORMATION

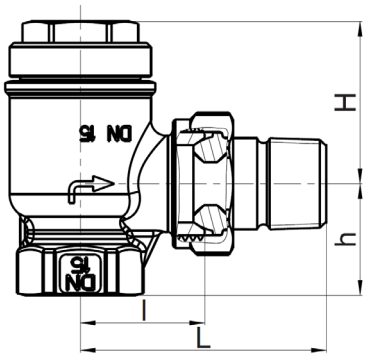


Fig. 1. Angled V2440E

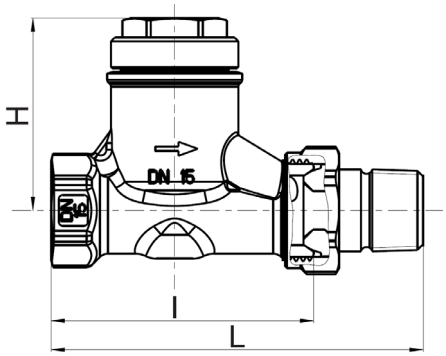


Fig. 2. Straight V2440D

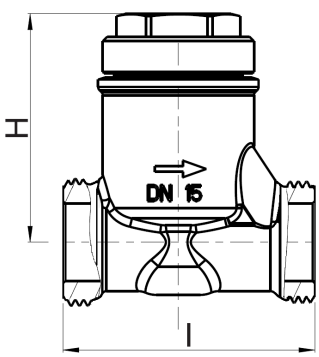


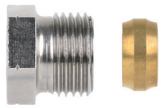
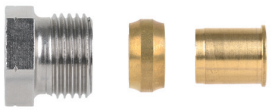
Fig. 3. Straight with external threads and flat sealing V2449D

Tab. 2 Dimensions and OS-No. (OS = Ordering System)

Body type	DN	Pipe connection	Radiator connection	Dimensions				OS-No.
				L	l	H	h	
Angle	15	Rp 1/2"	1/2" tailpiece	57	29	38	26	V2440E0015A
(Fig. 1)	20	Rp 3/4"	3/4" tailpiece	65	34	39	29	V2440E0020A
Straight	15	Rp 1/2"	1/2" tailpiece	96	68	50	-	V2440D0015A
(Fig. 2)	20	Rp 3/4"	3/4" tailpiece	107	74	48	-	V2440D0020A
	25	Rp 1"	1" tailpiece	109	76	48	-	V2440D0025A
Straight with flat sealing (Fig. 3)	15	G 3/4"	G 3/4"	-	55	50	-	V2449D0015A
	20	G 3/4"	G 3/4"	-	74	48	-	V2449D0020A

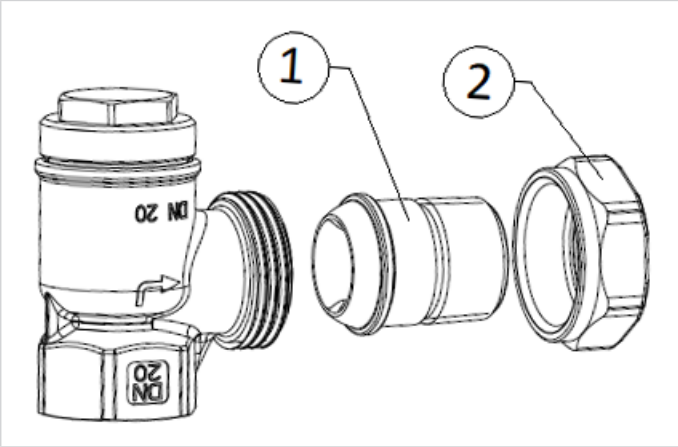
Note: All dimensions in mm unless stated otherwise.

ACCESSORIES

	Description		Dimension	Part No.
	**FIG3/8CS**	**Compression fitting for COPPER and STEEL pipe** Consisting of compression nut and compression ring. For valves with internal thread. Note: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120 °C, max. operating pressure 10 bar.		
		$^1/_2$", DN15	10 mm	FIG1/2CS10
		$^1/_2$", DN15	12 mm	FIG1/2CS12
		$^1/_2$", DN15	14 mm	FIG1/2CS14
		$^1/_2$", DN15	15 mm	FIG1/2CS15
		$^1/_2$", DN15	15 mm	FIG1/2CS15-10
		$^1/_2$", DN15	16 mm	FIG1/2CS16
		$^3/_4$", DN18	18 mm	FIG3/4CS18
		$^3/_4$", DN22	22 mm	FIG3/4CS22
	**FIG3/8CSS**	**Compression fitting for COPPER and STEEL pipe** Consisting of compression nut and compression ring and support insert. For valves with internal thread. Note: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120 °C, max. operating pressure 10 bar.		
		$^1/_2$", DN15	12 mm	FIG1/2CSS12
		$^1/_2$", DN15	14 mm	FIG1/2CSS14
		$^1/_2$", DN15	15 mm	FIG1/2CSS15
		$^1/_2$", DN15	16 mm	FIG1/2CSS16
		$^1/_2$", DN15	18 mm	FIG1/2CSS18
		$^3/_4$", DN20	18 mm	FIG3/4CSS18
	**FIG1/2M**	**Compression fitting for MULTILAYER pipe. Consisting of compression nut, compression ring and support insert. For valves with internal thread.** Note: Max. operating temperature 90°C, max. operating pressure 10 bar		
		$^1/_2$", DN15	16 mm	FIG1/2M16X2
	**VA6290**	**Reduction piece**		
		1" pipe > $^1/_2$" valve		VA6290A260
		$1^1/_4$" pipe > $^1/_2$" valve		VA6290A280
		1" pipe > $^3/_4$" valve		VA6290A285
		$1^1/_4$" pipe > $^3/_4$" valve		VA6290A305
	**VA5201A**	**Tailpiece with thread up to collar**		
		for valves DN15 ($^1/_2$")		VA5201A015
		for valves DN20 ($^3/_4$")		VA5201A020
		for valves DN25 (1")		VA5201A025
	**VA5204Bxxx**	**Extended radiator tailpiece, nickel-plated, to be shortened as required**		
		$^1/_2$" x 76 mm (for DN15) thread approx. 65 mm		VA5204B015
		$^3/_4$" x 70 mm (for DN20) thread approx. 60 mm		VA5204B020
	**VA5090**	**Sealing ring for pressure cap**		
		for valves DN15 ($^1/_2$")		VA5090A015
		for valves DN20 ($^3/_4$")		VA5090A020
	**VA2202A**	**Pressure cap – for shutting off valves on radiator outlet**		
		for valves DN15 ($^1/_2$")		VA2202A015
		for valves DN20 ($^3/_4$")		VA2202A020

SPARE PARTS

Overview



	Description	Dimension	Part No.
1	**Metal-to-metal sealing radiator tailpiece**		
		$^1/_2$", DN15	VA5200B015
		$^3/_4$", DN20	VA5200B020
2	**Coupling nut**		
		DN15, nut with G $^3/_4$" internal thread	VA5000B015
		DN20, nut with G 1" internal thread	VA5000B020

For more information

homecomfort.resideo.com/europe

Ademco 1 GmbH
Hardhofweg 40
74821 MOSBACH
GERMANY
Phone: +49 6261 810
Fax: +49 6261 81309

Manufactured for and on behalf of the
Pittway Sàrl, La Pièce 4, 1180 Rolle, Switzerland
by its Authorised Representative Ademco 1 GmbH
EN0H-2203GE25 R1120
Subject to change